

Claims;

1. A film for a liquid crystal display comprising cellulose ester film containing fine particles, wherein average diameter of the fine particle is 0.05 μ m to 3.0 μ m,

number of the fine particle per 1000 μ m² is 5 to 500 in cross-section perpendicular to the cellulose ester film in a region of a depth of not more than 10 μ m from surface of the cellulose ester film, and

the thickness of the cellulose ester film is between 20 and 65 μ m.

2. The film for the liquid crystal display of claim 1, wherein the average diameter of the fine particle is 0.05 μ m to 2.0 μ m.

3. The film for the liquid crystal display of claim 1, wherein the fine particle are secondary particles.

4. The film for the liquid crystal display of claim 1, wherein the film comprises foreign mater particles at size

of 5 m to 50 μ m and the number of the foreign matter particles is no more than 200 per 200 m².

5. The film for the liquid crystal display of claim 4, wherein the number of the foreign matter particles having a size of at least 50 μ m is substantially zero.

6. The film for the liquid crystal display of claim 1, wherein the film is obtained in the manner that after filtering a dope composition, the dope composition and an addition composition are blended.

7. The film for the liquid crystal display of claim 1, wherein the film is dried by tenter method.

8. The film for the liquid crystal display of claim 1, wherein the film is dried at the range of drying temperature of 40 to 150°C.

9. The film for the liquid crystal display of claim 1, wherein the film is peeled from a support at a residual solvent amount of 60 to 150 percent.

10. The film for the liquid crystal display of claim 1, wherein the film further comprises UV absorber..

11. The film for the liquid crystal display of claim 10, wherein the amount of UV absorber is between 0.1 and 2.5 percent by weight with respect to the cellulose ester.

12. The film for a liquid crystal display of Claim 1, wherein an amount of the fine particles in the film is 0.04 to 0.3 percent by weight with respect to cellulose ester.

13. The film for a liquid crystal display of Claim 1, wherein the cellulose ester film further comprises fine particles having average particle diameter of 3 to 5 μm .

14. The film for a liquid crystal display of Claim 1, wherein haze of the cellulose ester film is 0.0 to 0.6 percent, and dynamic friction coefficient of both a front surface and a back surface of the cellulose ester film is 0.5 to 1.3.

15. The film for a liquid crystal display of Claim 1, wherein the fine particles comprise a compound containing silicon atom.

16. The film for a liquid crystal display of Claim 1, wherein the cellulose ester film is subjected to knurling treatment of both edges so that X is to be between 0.0 and 25.0 percent wherein $X \text{ (percent)} = (a/d) \times 100$ is maintained, wherein "a" (μm) is the height of the knurling and "d" (μm) is the thickness of said film.

17. The film for a liquid crystal display of Claim 1, wherein the film is a protective film of polarizing plate.

18. The film for a liquid crystal display of Claim 1, wherein A/B is 1 or more, wherein A is a number of fine particles per $1,000 \mu\text{m}^2$ in the cross-section perpendicular to the cellulose ester film in the region having a thickness of 10 percent of the thickness from each surface of the cellulose ester film, and B is a number of fine particles per $1,000 \mu\text{m}^2$ in the region having a remaining thickness of 80 percent of the thickness.

19. The film for a liquid crystal display of Claim 1, wherein number of the fine particles per $1,000 \mu\text{m}^2$ is 0 to 5 in the cross-section perpendicular to the cellulose ester film in the region of a depth of $10 \mu\text{m}$ or more from surface of the cellulose ester film.

20. The film for a liquid crystal display of Claim 1, wherein number of projections having a size of at least $0.1 \mu\text{m}$, which exist on the surface of the cellulose ester film, is between 10 and 500 per $1,000 \mu\text{m}^2$.

21. The film for a liquid crystal display of Claim 1, wherein true specific gravity of the fine particles is between 0.8 and 4.0.

22. The film for a liquid crystal display of Claim 1, wherein the fine particles are selected from the group consisting of silicon dioxide, titanium dioxide, aluminum oxide, zirconium oxide, and tin oxide.